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Veterans and Agent Orange: Eligibility for Health Care and Benefits

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Summary

Since the 1970s, Vietnam-era veterans have attributed certain medical illnesses, disabilities, and birth defects to exposure to Agent Orange and other herbicides sprayed by the U.S. Air Force to destroy enemy crops and remove forest cover. During the last 30 years, Agent Orange legislation has established and updated the health and disability benefits of Vietnam veterans exposed to herbicides. This report provides a summary of the health care and disability benefits for exposed veterans and a summary of the epidemiologic research activities related to Agent Orange. This report will be updated as legislative events warrant.

Background

Between 1962 and 1971, the U.S. Air Force sprayed approximately 107 million pounds of herbicides in South Vietnam for the purpose of defoliation and crop destruction. The herbicides sprayed during the Vietnam era contained mixtures of 2,4-dichlorophenoxyacetic acid (2,4-D), 2,4,5-trichlorophenoxyacetic acid (2,4,5-T), picloram and cacodylic acid. The most extensively used defoliant compound, a 50:50 combination of 2,4-D and 2,4,5-T, came to be known as "Agent Orange" because of the orange-colored band placed on each chemical storage container. One of the chemicals used in Agent Orange, 2,4,5-T, contained small amounts of dioxin. Other herbicides employed in Vietnam such as "Agent Purple"and "Agent Green" also were contaminated with dioxin. Collectively these compounds were referred to as the "rainbow defoliants." The late 1960s saw a decline in the use of these herbicides when dioxin, already well-known to be highly toxic in animals, was implicated in birth defects seen in mice. By 1969, spraying was restricted to remote areas, and by 1971, the Air Force ceased all spraying of Agent Orange.

Since the 1970s, Vietnam-era veterans have voiced concerns about how exposure to Agent Orange may have affected their health and caused certain disabilities, including birth defects in their children. Initially, the Department of Defense (DOD) maintained that only a limited number of U.S. military personnel, such as those operating aircraft or troops engaged in herbicide spraying, could be positively linked to Agent Orange exposure. However, in 1979, the General Accounting Office, now the Government Accountability Office (GAO), reported that ground troops had also been exposed to Agent Orange, and DOD was forced to reconsider its prior statements.[1] In response to these concerns, Congress passed legislation to research the long-term health effects on Vietnam veterans, and to provide benefits and services to those who may have been exposed to Agent Orange. This report provides a summary of the health care and disability benefits for exposed veterans and a summary of the epidemiologic research activities related to Agent Orange.

Health Care

Prior to the 1981 Veterans' Health Care, Training and Small Business Loan Act (P.L. 97-72), veterans who complained of Agent Orange-related illnesses were at the lowest priority for treatment at Department of Veterans Affairs (VA) medical facilities because these conditions were not considered "service-connected." P.L. 97-72 elevated Vietnam veterans' priority status for health care at VA facilities by recognizing a veteran's own report of exposure as sufficient proof to receive medical care unless there was evidence to the contrary. The Veterans' Health Care Eligibility Reform Act of 1996 (P.L. 104-262) completely restructured VA medical care eligibility requirements for all veterans. Under P.L. 104-262, a veteran does not have to demonstrate a link between a certain health condition and exposure to Agent Orange; instead, medical care is provided unless the VA has determined that the condition did not result from exposure to Agent Orange or the condition has been identified by the Institute of Medicine (IOM) as having "limited/suggestive" evidence of *no* association between the occurrence of the disease and exposure to a herbicide.[2] The research by the IOM (part of the National Academies) and its significance is addressed below.[3]

Disability Compensation

The Veterans' Dioxin and Radiation Exposure Compensation Standards Act of 1984 (P.L. 98-542) required the VA to develop regulations for disability compensation to Vietnam veterans exposed to Agent Orange. This law authorized disability compensation payments to Vietnam veterans for the skin condition chloracne, which is associated with herbicide exposure. Under P.L. 98-542, veterans seeking compensation for a condition

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[1] U.S. General Accounting Office, *Ground Troops in South Vietnam were in Areas Sprayed with Herbicide Orange*, GAO 80-23, Nov. 1979, p. 1.

[2] "Limited/suggestive" evidence of no association is when several adequate studies, covering the full range of levels of exposure that human beings are known to encounter, are consistent in not showing a positive association between any magnitude of exposure to herbicides and the outcome of disease.

[3] For detailed information on eligibility for VA health care, see CRS Report RL33409, *Veterans' Medical Care: FY2007 Appropriations*, by Sidath Viranga Panangala.

they thought to be related to herbicide exposure had to provide proof of a service connection that established the link between herbicide exposure and disease onset. In 1991, the Agent Orange Act (P.L. 102-4) established for the first time a presumption of service connection for diseases associated with herbicide exposure. Under the Agent Orange Act, veterans seeking disability compensation for diseases they thought to be associated with herbicides no longer were required to provide proof of exposure. P.L. 102-4 authorized the VA to contract with the IOM to conduct a scientific review of the evidence linking certain medical conditions to herbicide exposure. Under this law, the VA is required to review the reports of the IOM and issue regulations, establishing a presumption of service connection for any disease for which there is scientific evidence of a positive association with herbicide exposure.[4,5] Once the VA has established presumption of service connection for a certain disease or medical condition, a Vietnam veteran with that disease is eligible for disability compensation. The amount of compensation is based on the degree of disability and, again, veterans are only compensated for approved conditions that have demonstrated sufficient evidence of an association with herbicide exposure. According to the most recent regulations, conditions that are presumptively recognized for service connection for Vietnam veterans include chronic lymphocytic leukemia (CLL); soft-tissue sarcoma; non-Hodgkin's lymphoma; Hodgkin's disease; chloracne; multiple myeloma; type II diabetes; acute and subacute peripheral neuropathy; prostate cancer; respiratory cancers and porphyria cutanea tarda.[6,7] Additionally, Vietnam veterans' children with the birth defect spina bifida are eligible to receive a monthly monetary allowance in addition to certain health care services. The Veterans Benefits and Health Care Improvement Act of 2000 (P.L. 106-419) authorized similar benefits and services for children with certain birth defects who were born to female Vietnam veterans.[8,9]

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[4] The term "service-connected" means, with respect to disability, that such disability was incurred or aggravated in the line of duty in the active military, naval, or air service. VA determines whether veterans have service-connected disabilities, and for those with such disabilities, assigns ratings from 0 to 100% based on the severity of the disability. Percentages are assigned in increments of 10%.

[5] This comprehensive review by the IOM has been repeated at least every two years since 1994 and is authorized to continue until October 2014. The latest update was compiled in 2004.

[6] *Veterans and Agent Orange* (Update 2004) weighed the strengths and limitations of the complete body of epidemiologic evidence on herbicide exposure and manifestation of certain health outcomes. This review assigned the investigated medical conditions to one of four categories ranging from "sufficient evidence of an association" to " limited or suggestive evidence of no association". This information is available in Table ES-1 in the 2004 Update. National Academies, Institute of Medicine, *Veterans and Agent Orange* (Update 2004), 2005, pp. 8-9.

[7] 38.C.F.R. §.3.309(e), 2005.

[8] 38 C.F.R. § 3.815

[9] For detailed information on eligibility for disability compensation see CRS Report RL33113, *Veterans Affairs: Basic Eligibility for Disability Benefit Programs*, by Douglas Reid Weimer.

The Agent Orange Registry

The Agent Orange Registry was established in 1978 by the VA for Vietnam veterans concerned about the health effects of exposure to Agent Orange. A veteran choosing to register is eligible for an examination consisting of a medical history, a physical examination and a series of laboratory tests. Each veteran is also required to answer a set of questions relevant to exposure. As of August 2005, more than 375,000 Vietnam veterans have participated in the registry. In September 2000, the Agent Orange Registry was expanded to include veterans who served in Korea in 1968 and 1969. As of August 2001, the registry is accessible to all U.S. veterans potentially exposed to dioxin or other toxic substances used in herbicides while engaged in military activity. Participating in the registry does not give exposed military personnel automatic access to health and disability compensation benefits.

Non-Vietnam Veterans Exposed to Agent Orange

Under current law only Vietnam veterans who served in-country are eligible to receive health care benefits and compensation for service "in Vietnam."[10] However, under certain circumstances veterans are eligible for health care and compensation benefits for service outside of Vietnam. A non-Vietnam veteran who claims an injury or illness resulted from exposure to Agent Orange while serving in the military can apply for service-connected benefits. But unlike Vietnam veterans they are required to prove they were exposed to Agent Orange. VA requires the following information in the veteran's benefit application: a medical diagnosis of a disease or condition the VA recognizes as associated with Agent Orange; evidence of exposure to a chemical contained in the herbicides used in Vietnam; and medical evidence that the disease began or manifested within the designated time frame, if any, for that disease.[11]

Epidemiologic Research on Vietnam Veterans

Due to the controversy surrounding the use of herbicides in Vietnam, significant research on the health effects of Agent Orange and dioxin exposure has occurred over the last 30 years. The majority of studies have focused on morbidity and mortality of Vietnam veterans and are conducted by the VA, the Centers for Disease Control and Prevention (CDC), the U.S. Air Force and the various veteran service organizations (VSOs). Despite the abundance of research completed, epidemiologic studies on Agent Orange are historically burdened by the lack of reliable exposure data. The lack of accurate data remains a continued source of frustration for researchers, government officials and Vietnam-era veterans seeking conclusive information on the health risks of exposure to Agent Orange. Below is a brief description of epidemiologic research conducted by the various agencies.

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[10] Service in the Republic of Vietnam includes service in the waters offshore and services in other locations if conditions of service involved duty or visitation in the Republic of Vietnam. 38 C.F.R. § 3.313(a)

[11] Additional information on benefits and compensation for veterans exposed to Agent Orange is available at the U.S. Department of Veterans Affairs, "VA's Guide on Agent Orange Claims, Compensation and Pension Service," Updated Apr. 27, 2004, pp. 1-7, at the website [http://www.vba.va.gov/bln/21/Benefits/Herbicide/AOno3.htm], visited June 26, 2006.

Centers for Disease Control and Prevention. In 1979, the VA was authorized to conduct an epidemiologic study to determine the association between Agent Orange and the medical concerns of Vietnam-era veterans. In carrying out the congressional mandate the VA was faced with substantial challenges in determining study design and research protocol and, in 1982, responsibility for the research was transferred from the VA to the CDC. The CDC also faced their own obstacles in research design and were delayed by the lack of exposure data. In response to the difficulty in obtaining exposure data, the CDC attempted an Agent Orange Validation Study to see if indirect estimates of exposure from military records and self-reports could be compared to dioxin serum levels in veterans as a method of determining true exposure. After investigation, the CDC reported that military records and self-reports obtained from the Agent Orange Validation Study were inadequate for identifying the exposed individuals necessary for a large epidemiologic study of dioxin effects. Secondary to the problems faced by the VA and the CDC, a group of government panels and advisory boards determined that the congressionally mandated Agent Orange Study was improbable and the CDC investigation ended.[12]

Air Force Health Study (AFHS). Operation Ranch Hand was responsible for spraying herbicides in Vietnam between 1962 and 1971. In 1982, Air Force investigators began a study investigating the long-term health problems of pilots and ground crews engaged in spraying herbicides in Vietnam. The study cohort consisted of more than 1,200 Ranch Hand veterans and more than 19,000 comparison Air Force veterans who did not spray herbicides. AFHS data collected between 1979 and 1993 revealed no statistically significant differences between the Ranch Hand personnel and the comparison cohort both for all-cause mortality and for cause-specific mortality. The exception was an increased mortality rate for circulatory diseases seen in enlisted ground crew personnel, a group at higher risk for skin exposure to herbicides. In 2005, an AFHS update reviewing 20 years of epidemiologic data on mortality rates, reported a small, but significant, increase in all-cause death rates for Ranch Hand veterans. This was the first published research to find a statistically significant increase in the relative risk for all-cause mortality among Ranch Hand veterans.[13] After 20 years of analysis, data collection and review, a recent IOM publication indicated that diabetes presented as the most serious health problem observed in the AFHS. Type II diabetes was added to the list of service-connected diseases for Vietnam veterans exposed to Agent Orange in 2001.[14]

The long-standing AFHS is scheduled to end on September 30, 2006. The FY2007 Defense Authorization bill (H.R. 5122) contains a provision to transfer custody of the AFHS to the IOM. This decision to retain the AFHS materials was based on the scientific merit of maintaining herbicide exposure records as a valuable source of medical and

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[12] The government panel and advisory groups included the CDC advisory group, the Science Panel of the Domestic Policy Council's Agent Orange Working Group and the Agent Orange Advisory Panel of the Congressional Office of Technology Assessment.

[13] Norma Ketchum and Joel Michalek, "Postservice Mortality of Air Force Veterans Occupationally Exposed to Herbicides During the Vietnam War: 20-year follow-up results," Military Medicine, vol. 170, no. 5, (May 2005), pp. 406-413.

[14] National Academies, Institute of Medicine, *Disposition of the Air Force Health Study*, 2006, p. 55.

epidemiologic data as recommended by the IOM study.[15] House committee report language directs the Secretary of Defense to make $850,000 available to the Air Force in preparation for the transfer of study data to the IOM. An additional $200,000 is to be reimbursed from the Department of Defense to the IOM for costs related to the transfer of study materials from the Air Force.[16] Under this provision the Air Force is required to submit a report on the transfer to the Armed Services Committees of Congress. A conference on H.R. 5122 is pending.

[15] Ibid., p. 4.

[16] U.S. Congress, House Committee on Armed Services, *National Defense Authorization Act for Fiscal Year 2007*, a report to accompany H.R. 5122, 109th Congress, Second session, H.Rept 109-452, (Washington: GPO, 2006), p. 348.